



Transportation Services Branch  
Transportation and Marketing Programs  
Agricultural Marketing Service  
U.S. Department of Agriculture

Transportation Indicators for the Agricultural Containerized Shipping Industry

## First Quarter 2005

(January-March)

Issued May 2005

Indicator Agricultural Products U.S. to Asia	Current	% change	
		Last quarter	Last year
Rates - 1st Quarter 2005			
<a href="#">Refrigerated shipments</a> <sup>1</sup>	\$3,581	(4%)	1%
<a href="#">Dry shipments</a> <sup>2</sup>	\$1,383	12%	9%
Surcharges			
<a href="#">Bunker (fuel) Adjustment Factor</a> <sup>1</sup>	\$320	21%	70%
<a href="#">Currency Adjustment Factor</a> <sup>3</sup>	50	2%	11%
Volume - January 2005			
<a href="#">Outbound shipments</a> <sup>4</sup>	96 <sup>5</sup>	(2%) <sup>5</sup>	8% <sup>5</sup>
Capacity - 4th Quarter 2004, all products			
<a href="#">Container slots available</a> <sup>4</sup>	1,717	(2.5%)	4%
<a href="#">Container slots used</a> <sup>4</sup>	1,008	10%	2%
<a href="#">% of container slots used</a>	59%	8%	(2%)

<sup>1</sup>per 40-foot container <sup>2</sup>per 20-foot container <sup>3</sup>for shipments to Japan only <sup>4</sup>thousand 20-foot containers

<sup>5</sup>monthly data presented, not quarterly

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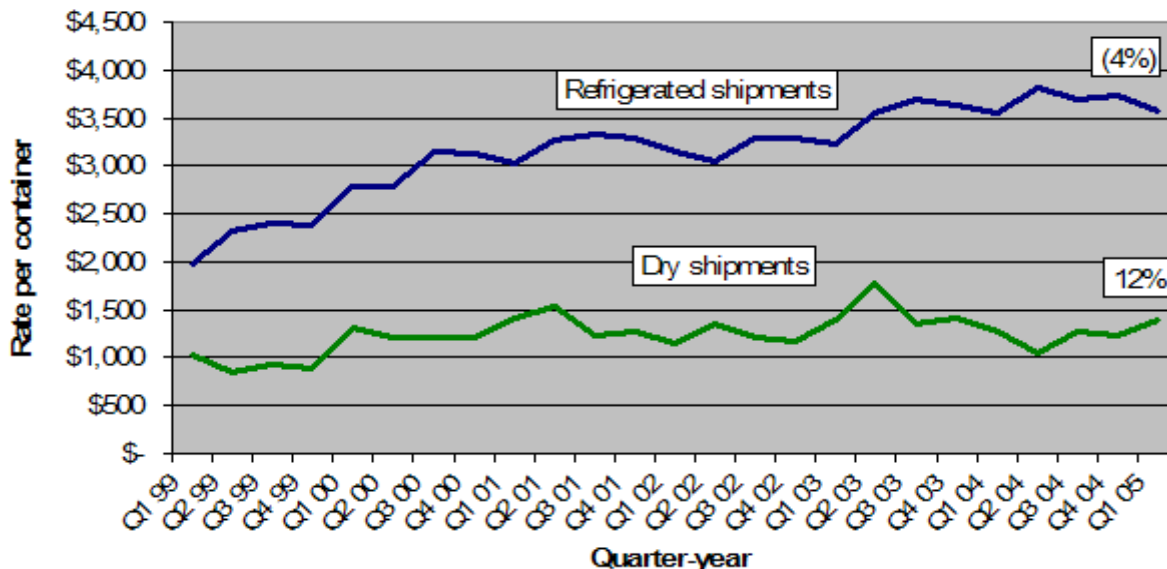
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## Container Rates: Agricultural Shipments

### Refrigerated and Dry Commodities, U.S. to Asia



\*Refrigerated rates are for 40-foot containers. Dry rates are for 20-foot containers.

The indicators above are indexes based on a group of tariff rates for commodities tracked quarterly in the *Ocean Rate Bulletin*. Rates are weighted by market share for each shipping line, trade lane, and commodity. The refrigerated rate index includes: poultry, lettuce, frozen potatoes, grapes, apples, and oranges. The dry rate index includes: almonds, animal feed, pistachios, raisins, soybeans, and lentils. Rates include all surcharges and are calculated on a typical shipment for each commodity. See the list of [Asian countries](#) used in determining the refrigerated and dry rates.

Source: *Ocean Rate Bulletin*, USDA/AMS, <http://www.ams.usda.gov/tmd/ocean/index.asp>, 1999-2005

**Dry rates increased during quarter 1, 2005.** Tariff rates for dry commodities have increased since quarter 2, 2004, as carriers shift costly terminal storage fees and rising fuel prices to shippers. Rates for dry containerized agricultural exports such as animal feed, nuts, and soybeans to Asia increased by 12 percent during quarter 1, 2005. Refrigerated tariff rates were down 4 percent during the same 3-month period. Quarter 1, 2004, rates compared with quarter 1, 2005, rates are up 1 and 9 percent for refrigerated and dry commodities, respectively. Before the influx of consumer goods from Asia, carriers moved dry low-valued cargo at a low rate to avoid repositioning an empty container which resulted in lost revenue. However, with a weak U.S. dollar these once ignored low-valued commodities are now being exported at a higher rate and volume.

**General Rate Increases (GRIs) expected during quarter 2, 2005.** Member carriers of the Westbound Transpacific Stabilization Agreement (WTSA) have recommended GRIs for all dry agricultural products to take effect May 1, 2005. The WTSA is a discussion group of major ocean carrier shipping lines operating in the U.S. to Asia trade lane. Member carriers discuss market situations, rates, and service availability. During this year's contract negotiation season between carriers and shippers, carriers are demanding shippers pay higher rates in new service contracts. A typical contract is negotiated for a 1-year period; however, shippers are requiring longer contract durations to hedge against further rate fluctuations.

#### So what? (follow this link to expand)

For agricultural exporters, the cost of shipping a container of product overseas can be as much as 50 percent of the final price of their product. Therefore, it is important for U.S. exporters to closely watch the trends of outbound container rates. It is necessary for shippers to keep in mind the trends for rates and surcharges, especially as they enter into service contract discussions in an effort to be better prepared.

#### What is a container rate? (follow this link to expand)

A rate is the amount charged by a shipping line for the carriage of each container of product. A

"tariff rate" is a rate filed with the [Federal Maritime Commission](#) by the shipping line for the commodities likely to be carried and the regions served by the company.

[AMS](#)

[USDA](#)

[SEARCH](#)

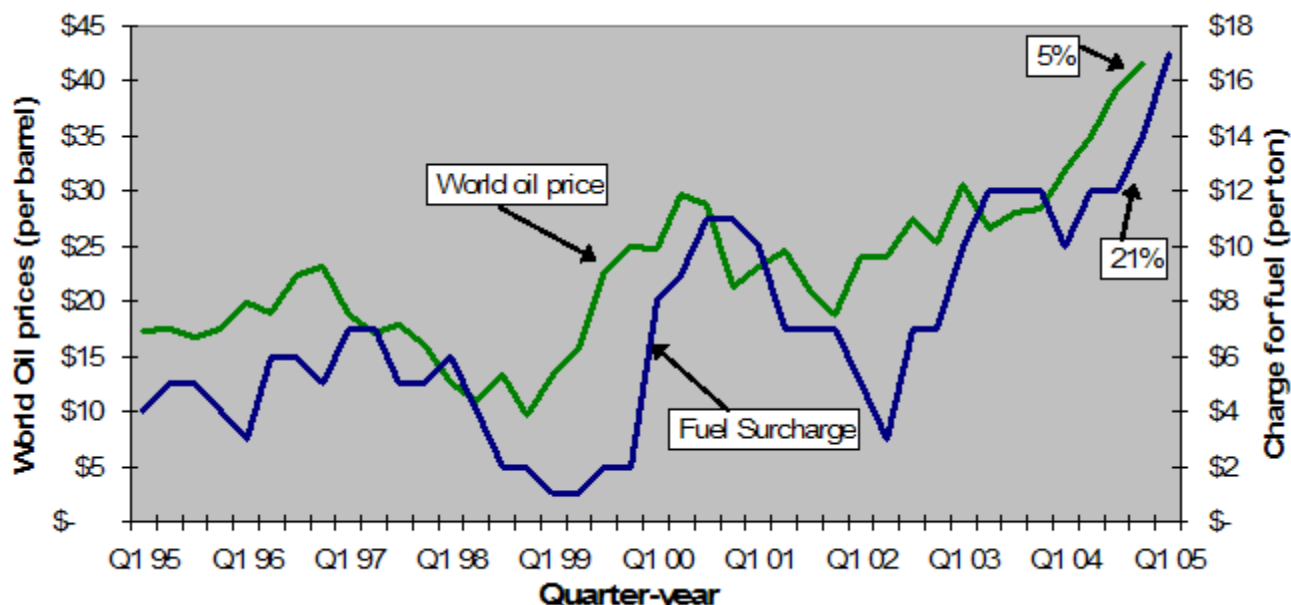
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## Surcharges: Bunker Adjustment Factor A Special Charge for Fuel

### Bunker Adjustment Factor Surcharge, Compared with World Oil Prices



Sources: World Oil Prices: [http://tonto.eia.doe.gov/oog/info/twip/twip\\_crude.html](http://tonto.eia.doe.gov/oog/info/twip/twip_crude.html)

Bunker Adjustment Factor: Ocean Rate Bulletin, USDA, <http://www.ams.usda.gov/tmd/ocean/index.asp>

**Bunker Adjustment Factor (BAF) reaches 10-year high.** The current fuel surcharge of \$17 per metric ton is the highest it has been in 10 years according to publicly filed tariff rates (*Ocean Rate Bulletin*) and recommendations from the Westbound Transpacific Stabilization Agreements (WTSA). The fuel surcharge increased 70 percent from the same quarter last year. Before the current rate of \$320 per 40-foot container, the highest BAF surcharge occurred in quarter 2, 2003, when it reached \$230 per 40-foot container. However, recommendations from the WTSA and publicly filed tariffs show a decrease in the BAF surcharge from \$17 to \$15 per metric ton in quarter 2, 2005 (see BAF table). This decrease will result in a \$45 (per 40-foot container) relief for agricultural shippers exporting products to Asia.

Bunker Adjustment Factor		
Rate	Quarter 1	Quarter 2
Per 40-foot container	\$320	\$275
Per 20-foot container	\$256	\$220
Per ton	\$17	\$15

World crude oil prices for quarter 1, 2005, are near \$50 per barrel, approximately \$13 per barrel higher than quarter 1, 2004. As growth in world oil demand is projected to remain robust, and worldwide spare oil production remains low, prices are likely to remain near the \$50 per barrel range throughout 2005 and 2006. (Source: Energy Information Administration, *Short-term Energy Outlook*, March 2005)

#### So What? [\(follow this link to expand\)](#)

This change in BAF is significant, especially for exporters shipping lower valued agricultural commodities, such as hay and cotton, since it can increase the cost of a shipment by more than 30 percent. When all-inclusive rates are set in service contracts, shippers are typically not asked to pay the higher surcharge; however, these shippers may face the increases during contract renewals.

#### What is the BAF? [\(follow this link to expand\)](#)

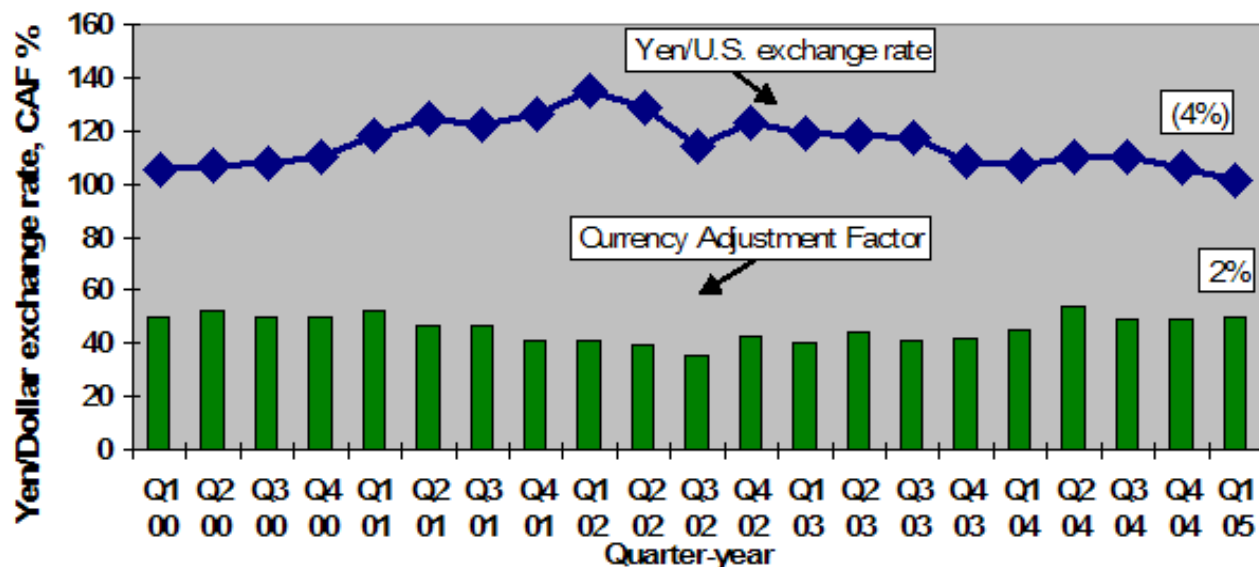
The BAF is a surcharge implemented by shipping lines to compensate for fluctuating fuel costs. It is also sometimes called "Fuel Adjustment Factor" or FAF. The surcharge is expressed either as a charge per ton or per container, depending on the type of base rate used.

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## Surcharges: Currency Adjustment Factor (Japan)

### Comparison of the Yen/Dollar Exchange Rate with the Currency Adjustment Factor (CAF) for Shipments to Japan



Sources: Federal Reserve Statistical Release, Foreign Exchange Rates, Historical Data <http://www.federalreserve.gov/releases/H10/hist/>; Ocean Rate Bulletin, AMS, 2000- Quarter 1, 2005

**Higher Currency Adjustment Factor (CAF) surcharges expected for 2005.** Carriers increased CAF surcharges to 50 percent, 2 percent above quarter 4, 2004, for shipments to Japan during quarter 1, 2005. The current CAF surcharge reflects an 11 percent increase compared with the same quarter last year. If the value of the U.S. dollar continues to decrease during 2005, shippers can expect to see a steady increase in CAF surcharges for shipments to Japan.

**CAF surcharges expected to increase for quarter 2, 2005.** During quarter 1, 2005, the yen per U.S. dollar exchange rate declined by 4 percent compared with the previous quarter. In response to this decrease of the yen per U.S. dollar exchange rate, the Westbound Transpacific Stabilization Agreement (WTSA) has suggested an increase in CAF surcharges to 53 percent for shipments to Japan during quarter 2, 2005 (see CAF Table). An increase of 3 percentage points in the CAF surcharge represents an increase of \$111 for a 40-foot container of fresh oranges and a \$33 increase for a 40-foot container of hay. The WTSA has also recommended a 1 percentage point increase for shipments to Taiwan. The WTSA is a discussion group of major ocean carrier shipping lines operating in the U.S. to Asia trade lane. Member carriers discuss market situations, rates, and service availability

Currency Adjustment Factor		
Country	Quarter 1	Quarter 2
Japan	50%	53%
Singapore	10%	10%
Taiwan	4%	5%

#### So what? (follow this link to expand)

The CAF can add as much as 50 percent to the rate U.S. shippers pay for containers heading to Japan, as seen throughout the year 2004 when the surcharge reached 54 percent. As a result, shippers should estimate their transportation costs on base rates and the extra surcharges. Shippers may also want to negotiate for an "all inclusive" rate in a service contract that includes surcharges such as this, as a way to minimize costs.

#### What is the CAF? (follow this link to expand)

The CAF allows carriers to pass on the effects of changing exchange rates on their costs to shippers--the CAF rises as U.S. exchange rates fall. It is charged as a percent of the base rate and

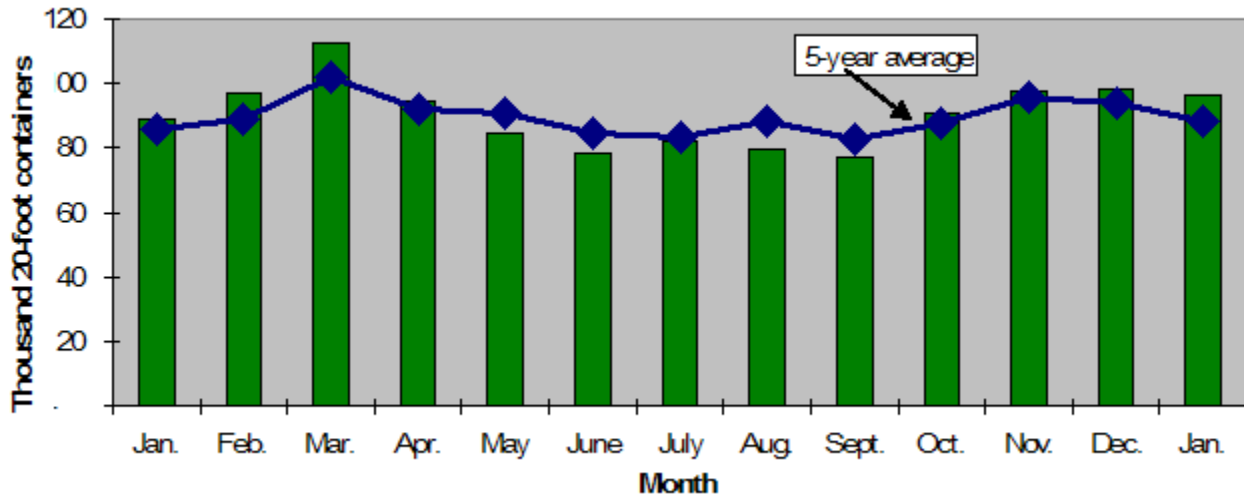
is typically not applied to other surcharges. AMS research has shown a close relationship between the CAF and the exchange rate to Japan. As the dollar weakens in value, meaning fewer yen can be purchased per dollar, the cost of doing business in foreign countries increases and/or the value of a freight bill paid in dollars decreases, and the CAF is increased to offset this change. The only major difference appears to be the lag caused by the CAF being based on the average exchange rate for the previous 3 months. (Casavant, K. and Wilson, W., "Evaluation of the Use of Currency Adjustment Factor (CAF) Surcharges in Pacific Northwest Ocean Transportation," submitted to Transportation and Marketing Programs/USDA, March 1991)

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## Outbound Volume: Agricultural Shipments

### Containerized Agricultural Products, U.S. to Asia



Source: Port Import Export Reporting Service (PIERS), Journal of Commerce, New York, 2004 and Jan. 2005  
See a list of [Asian countries](#) used to calculate the volume numbers above.

**January agricultural exports to Asia initiate a strong beginning to 2005.** January 2005 containerized agricultural exports to Asia were up 8 percent over January 2004 levels and over 9 percent above the 5-year average. Since October 2004, volumes of high-valued agricultural products have been above the 5-year average showing strong demand for U.S. agricultural exports. Contributing to this strong level of agricultural exports was an almost 200 percent increase in containerized soybeans and a 25 percent increase in containerized animal feed over January 2004 levels. Additionally, meat exports improved by 32 percent over January 2004 as Asian markets gradually reopen to U.S. meat products. In contrast, containerized cotton exports decreased by 16 percent as the U.S. competes with record cotton production levels in China and India.

#### So what? (follow this link to expand)

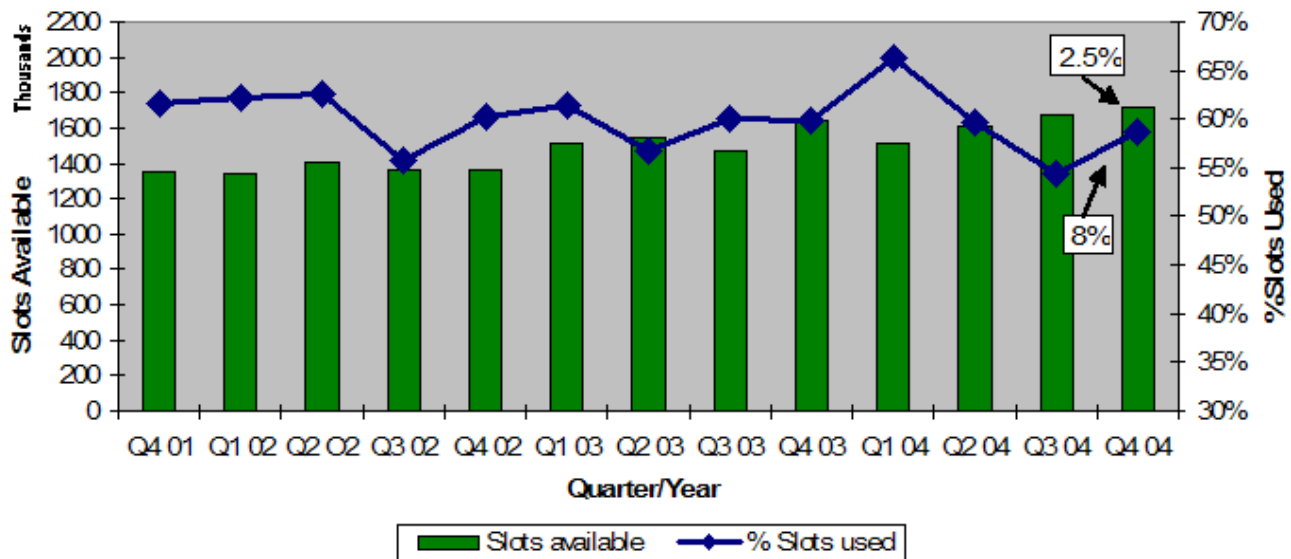
Shipments to Asia are the focus for this report because annually, nearly 60 percent of all U.S. agricultural containerized shipments are destined for Asian markets. Trade volumes overall can give an indication of the demand for space on vessels in the trade lanes and can be a signal to changes in rates and equipment availability. However, although agricultural commodities are only one component of U.S. exports to Asia and rates are not impacted much by agricultural trade volumes alone, in terms of equipment availability (such as temperature- and atmosphere-controlled containers), it is important for shippers to know the potential for competition, especially when there are equipment shortages. Further, when commodity peak seasons do occur, especially for those commodities demanding special equipment, such as fresh fruit, shipping lines may impose a peak season surcharge, as witnessed in the late fall of 2002.

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## Capacity and Utilization

### Outbound Container Slots Available vs. Slots Used, U.S. to Asia



Source: On Board Review, PIERS, New York, 2001-2004

**Vessel utilization increases during quarter 4.** The percentage of container slots used during quarter 4, 2004, rose 8 percent while the number of slots made available by carriers rose 2.5 percent. This increase in the container slots used during quarter 4 is consistent with strong exports of containerized agricultural products during the last 3 months of 2004 (see [Volume](#) section). Since the beginning of 2004, available container slots for export to Asia have been increasing each quarter corresponding with a consistent decrease in the percentage of slots used. However, even with increasing slot availability, quarter 4 exports brought a significant increase in slot utilization. The number of container slots made available by carriers is likely to increase in 2005 as nearly 200 post-panamax vessels, which hold more than 8,000 20-foot containers, are scheduled for delivery by the end of 2007.

#### So what? (follow this link to expand)

For U.S. agricultural exporters, overall use of available container slots for container ships in a particular trade lane can have a significant effect on the rates and services offered by shipping lines. When slot use is down, carriers can compete for cargo to fill the empty containers that must be repositioned back to Asia for use in the Asia to U.S. trade lanes. Carriers often reduce rates to compete for low-valued agricultural products such as hay and animal feed. Products such as these require less handling and fewer services but fill containers, which is attractive to carriers in need of cargo. In contrast, when space is limited, carriers can react to the high demand by increasing freight rates, providing preference to high-valued cargo, which moves at higher freight rates.

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## Sources and Related Information

### Sources

**Rates** and surcharges reported in the AgCI are taken from the [Ocean Rate Bulletin](#) (ORB).

The ORB offers a side-by-side comparison of rates for high-valued containerized agricultural commodities using actual shipping line market share.

- Exchange rates compiled by the [Federal Reserve](#)
- Fuel price data compiled by the [Energy Information Administration of the Department of Energy](#)
- Surcharge information provided by the Westbound Transpacific Stabilization Agreement Web site at [www.wtsacarriers.org/charges.html](http://www.wtsacarriers.org/charges.html)

**Volume** data reported in the AgCI are taken from the Port Import Export Reporting Service (PIERS), a product of the *Journal of Commerce*.

#### Trade Data:

- Department of Commerce, U.S. Census Bureau
- USDA Foreign Agricultural Service and Economic Research Service

**Capacity and utilization** data used in the AgCI are sourced from the *On Board Review*, a product of PIERS and the *Journal of Commerce*.

### Additional Resources:

[Agricultural Ocean Transportation Trends](#) (semiannual publication)

[Identity Preserved Grain, A Logistical Overview](#) (.pdf)

[Federal Maritime Commission](#)



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